SYSTEM AND METHOD FOR EFFICIENTLY EFFECTUATING GAINSHARE COLLABORATION BETWEEN BUYERS, SELLERS AND THIRD PARTY SERVICE PROVIDERS IN SUPPLY COMMUNITIES

BACKGROUND OF THE INVENTION

(1) Field of the Invention: The present invention relates to collaborative gainsharing incentive programs between supply community partners, including buyers, sellers and third party service providers and more particularly to a method and system for effectuating collaboration by enabling the establishment of favorable and unfavorable consequences that motivate participants to achieve or exceed a minimum required level of performance.

(2) Description of the Prior Art: Business Partners must collaborate to compete in today's marketplace, especially to drive growth by short-cycle innovation and to liberate the resources necessary to fund growth. Unfortunately, their attempts to accomplish the latter by collaborating to drive out non-value added costs are often frustrated by one or more factors, such as:

(a) Relationship: Buyer-seller relationships are fundamentally adversarial, by natural predisposition. Breaking through to a win-win partnership requires an unnatural level of trust, integrity, and cooperation, achieved only by a step of faith (by both parties) followed by shared values and consistent behavior, or a sufficiently long-term relationship for trust to develop. Both are rare indeed in today's marketplace.

(b) Performance Reporting: Often the buyer and seller do not have a single unified view of their mutual performance in the extended supply

chain. For example, buyers measure the seller's performance versus the buyer's request (order), while sellers measure their own performance versus their commitment to the buyer (which may be different than the order). Frustration results when the partners, despite their best intentions, are unable to agree on the gaps that must be closed by a joint continuous improvement program because their metrics are not aligned.

(c) Product and Process Complexity: There exists a natural tension between the seller's need to standardize (to reduce complexity) and the buyer's need to differentiate (which increases complexity). At best, the seller is able to meet each buyer's diverse and conflicted needs within an acceptable financial or performance impact. At worst, the seller must make difficult prioritization decisions (choosing one buyer over another) without adequate financial rigor. The decision process becomes subjective, internal strife ensues, and the enterprise becomes increasingly inwardly focused.

(d) Economics: The value of an improvement opportunity is rarely naturally allocated to spontaneously and simultaneously drive the desired behavior by both buyer and seller. For example, often the incremental cost required to realize the improvement is borne by the seller, while the savings accrue to the buyer. If so, the seller will only invest if the buyer commits to an increased revenue stream (achieved, for example, by increasing the selling price, period, term or volume of the supply contract). Needless to say, the reverse situation, where the buyer invests and the seller realizes the savings, is even more problematic.

Being limited by these barriers, buyer and sellers typically resort to three common approaches for forcing or motivating their business partners to change, all of which have their limitations.

(a) Buyers simply institute new standards (specifications) for the product, process, or service performance, and rely on the competitive context to ensure that the seller(s) comply at an acceptable cost. This is most effective in an over-supplied market, but does not necessarily produce the highest value solution.

(b) Sellers, on the other hand, seek to incentize (hereinafter shortened to "incent" for ease of usage) the desired Buyer performance through terms of sale programs, which typically share logistics cost savings realized by the seller with the buyer. Unfortunately, enforcement is difficult, at best. Often the credit is allowed even though it has not been truly earned.

(c) There are instances where sellers and buyers do enter into strategic relationships to accelerate innovation and simplify the supply chain. Each solution is structured individually and typically governed by a negotiated contract. As a result, significant resource is required to scale this approach to extend it to the partner community at large, thereby limiting it to one-off arrangements.

Clearly, a more robust solution is required to address the needs of the business partners in the supply community. Such a solution will succeed only if it is:

(a) Trusted: The solution's process must be sensible and fair, and the rules must be pre-defined and enforced.

(b) Relevant: The key performance indicators and their targets must be explicit and objective, and based on the needs of the partner (customer) as defined by the partner (customer).

(c) Economic: The key performance indicators must be monetized (i.e., economic value associated with a change in level of the key performance indicator) to enable economic-based decisions.

(d) Cheap and Easy: The solution's process must be simple and intuitive, extendable with little incremental cost or effort, and inexpensive relative to the expected benefits.

The domestic U.S. Transportation Marketplace is especially needful of such a solution. Revisions to the hours of service regulations that control driver work time became effective on January 4, 2004. The key change from the prior regulations was that non-driving activities performed by drivers at the ship from/to location (such as waiting, loading, unloading, counting, sorting and segregating, etc) became on-duty activities, thereby accruing against the driver's 14 hour time limit. This will force carriers to increase the value that they associate these non-drive time activities, changing the economics of dwell time at ship locations. This market discontinuity presents a perfect opportunity for a solution that enables shippers, carriers, and customers (a.k.a. consignees) to collaborate to improve the operation of the extended supply chain so as to avoid these increased costs.

A solution is needed that can be applied to any buyer-seller relationship where the performance or behavior of one partner unfavorably impacts the cost or performance of another partner. In such a situation, the affected partner benefits if that partner successfully influences the affecting partner to change its behavior so as to eliminate the unfavorable impact on the affected partner. The most effective influencing strategy would seem to be to monetize the wasteful and undesired performance of the affecting partner by financially rewarding that partner, after the desired change is made, by sharing a portion of the economic value that the affected partner associates with the desired change in performance. It is to this incentive (a.k.a. gainsharing) concept that the present invention is directed by providing a system and method that can be efficiently and effectively applied in many-to-many supply communities.

BRIEF SUMMARY OF INVENTION

The present invention is a method and apparatus for effectuating collaboration between one or many buyers and sellers, and their third-party service providers, (collectively called Partners) in a supply community. The present invention enables any Partner to establish financial consequences that motivate one or many selected supply chain Partners to achieve or exceed a minimum required level of performance on one or many performance indicators. The one or many indicators measure the aggregated performance for a set of events defined by a time or count period, wherein the performance indicator, its time or event count period, the financial consequence, and the minimum required level or performance are selected and/or specified by the establishing Partner (hereinafter collectively referred to as an "incentive program"). The establishing Partner must specify a time or event count duration period, during which period the establishing Partner can increase a favorable consequence or reduce the minimum required level of performance, and after which may discontinue the incentive program with different and, if desired, initiate a new incentive program with different (perhaps more stringent) parameters. In a preferred embodiment, the system of the present invention includes an internet-based web-site application by which establishing Partners (also referred to as "program sponsoring Partners") can, for any group or groups of their supply chain Partners, create incentive programs by specifying the required program parameters, and thereafter change the parameters, as allowed, to maximize the performance or the economic gain realized by the program sponsoring Partners,

wherein the web-site application automatically calculates the performance of each Partner on each performance indicator, determines the (aggregate) reward payable to the Partner, and automatically settles the credits and debits accrued by the program sponsoringPartner and each Partner, without necessitating the program sponsoring Partner to enter into a contractual agreement with any Partner. The method and system of the present invention have application for any buyer-seller relationship in any market.

Thus, there has been outlined the more important features of the invention in order that the detailed description that follows may be better understood and in order that the present contribution to the art may be better appreciated. There are, of course, additional features of the invention that will be described hereinafter and which will form the subject matter of the claims appended hereto. In that respect, before explaining at least one embodiment of the invention in detail, it is to be understood that the invention is not limited in its arrangement of the components set forth in the following description and illustrated in the drawings. The invention is capable of other embodiments and of being practiced and carried out in various ways.

It is also to be understood that the phraseology and terminology employed herein are for the purpose of description and should not be regarded as limiting in any respect. Those skilled in the art will appreciate that the concept upon which this disclosure is based may readily be utilized as a basis for designing other structures, methods and systems for carrying out the several purposes of

this development. It is important that the claims be regarded as including such equivalent methods and products resulting therefrom that do not depart from the spirit and scope of the present invention. The application is neither intended to define the invention of the application, which is measured by its claims, nor to limit its scope in any way.

Thus, the objectives of the invention set forth below, along with the various features of novelty which characterize the invention, are noted with particularity in the claims annexed to and forming a part of this disclosure. For a better understanding of the invention, its operating advantages and the specific results obtained by its use, reference should be made to the following detailed description taken in conjunction with the accompanying drawings wherein like characters of reference designate like parts throughout the several views.

The drawings are included to provide a further understanding of the invention and are incorporated herein and constitute a part of the specification. They illustrate embodiments of the invention and, together with their description, serve to explain the principles of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a block diagram illustrating the creation and modification of incentive programs wherein an establishing Partner must specify or select (i) one or more invited Partners, (ii) one or more key performance indicators, (iii) the minimum required performance level, the consequence when the minimum required performance level of each performance indicator is met, and a measurement period for each performance indicator, and (iv) the program duration with starting and ending dates.

Figure 2 is a block diagram illustrating the execution of the incentive program during which each program duration selected by an establishing partner may increase the reward or reduce the minimum required performance levels for a particular key performance indicator.

DETAILED DESCRIPTION OF THE INVENTION

The incentive program of the present invention utilizes a concept that can be applied to any buyer-seller-third party provider relationship in any supply community where the performance of one Partner (unfavorably) impacts the cost or performance of another Partner. In such a situation, the affected Partner benefits if that Partner successfully influences the affecting Partner to change its performance so as to eliminate the unfavorable impact. The most effective

influencing strategy is to financially reward the affecting partner after the change is made by sharing a percentage (up to, and optionally over, 100%) of the economic value that the affected Partner associates with the desired improvement in performance.

Having decided to so influence their Partners, the affected Partner creates the incentive program, and as a sponsor of the program, specifies the following parameters for the program: (a) the financial reward (consequence); (b) the key performance indicator and the minimum required performance level that must be exceeded to earn the reward; (c) the program duration and, (d) the Partners to be invited to participate in the program.

If an invited Partner accept the invitation to participate, and if and when the performance of the then participating Partner exceeds the minimum required level of performance, the program sponsoring Partner receives a debit and the participating Partner receives a credit in the amount of the reward. If the Partners are active in other programs, a net debit or credit is determined. The debits and credits are then settled, preferably by first invoicing the debits and then paying the credits after an established period of days after receipt of funds. Program sponsoring Partners are motivated to pay on time as their participating Partners will be less than pleased with slow credit payments.

A key feature of the incentive program is that the program sponsoring Partner controls the frequency by which the bar is raised by determining the

program duration and the amount by which the minimum required performance level is increased in successive programs to ensure that the program sponsoring Partner (the affected party) does (eventually) receive the entire benefit. However, if the program sponsoring Partner establishes a short duration period, signaling that it intends or plans to raise the bar (the minimum required performance level) quickly, the invited Partners may choose not to participate, particularly if an investment is required to perform at or above the threshold level. Since each program is monetized (as determined by the program parameters) and the invited Partners are free to choose the incentive programs in which they participate, it is expected (all other things being equal) that each invited Partner will participate so as to maximize its economic gain. Program sponsoring Partners are free to adjust the parameters on their programs, prior to the program start date (if not satisfied with the acceptance of the invited Partners), or during the program duration (by reducing the target threshold or increasing the financial reward), or after the incentive program end date (whereupon a new incentive program with different parameters can be created).

The present invention is particularly beneficial in that it enables any Partner in any supply community to cost-effectively collaborate in gainsharing efforts with many of their Partners, contemporaneously. Gainsharing is a well-known practice, typically observed in (union) labor remuneration and in one-on-one (dyad) buyer-seller business arrangements. Such arrangements are typically governed by a negotiated contract, and require significant effort to develop, implement, and maintain. As such, current gainsharing practice and techniques

are only used in the most significant of business relationships; they do not scale well, at all. The present invention resolves this limitation. Gainsharing can now be practiced by many partners with many other partners ("many-to-many") in a most cost-effective manner. Individual contracts are not required, as each program sponsoring or participating Partner has accepted the same policy and procedures agreement when becoming a member Partner in the web-site application (see below), dramatically reducing the effort required to initiate a program. Similarly, data collection and key performance generation and reporting is standardized and automated within the web-site application, again reducing effort required. Even the credit/debit reconciliation is automated. The realized productivity gains enable the Partners to initiate and execute incentive programs with many Partners, not just the most significant. This novel capability affords the potential for whole markets to evolve towards the highest value aggregated state, rather than a lower value state defined by the cumulative highest value states of sub-optimized buyer-seller dyads.

In addition, the present invention resolves an especially awkward type of collaboration, namely intra-enterprise collaboration between two (or more) business units within a single business entity. It is well known that it can be difficult for divisions within a single corporate entity, where each division has its own profit accountability to collaborate so as to optimize the whole, simply because (typically) one division must incur a cost for the other for the other division to realize a savings. The division that incurs the net cost usually refuses to participate, unless the higher aggregating entity grants it special relief on their

profit goals (in essence sharing the gain between the two divisions). The present invention resolves this tension. Now two divisions have the means to gainshare without involving the common boss. Both divisions can now win against their own profit goals, being confident that neither can take advantage of the other because the process is enforced by the incentive program business process on the web-site application.

In the transportation marketplace mentioned earlier, all participating Partners might derive benefit with no initial investment and minimal (if any) ongoing operational costs. The following chart sets forth the benefits that might be sought and an approach to achieving those benefits.

Carriers

Benefit	Approach
Reduce/Eliminate Non-Value Added Costs	Reduce/eliminate driver assists by using the Incentive Program to incent Locations to convert to Location (Un)Load and Count. This will increase driver satisfaction and reduce driver turnover and driver retention costs.
Increase Return on Assets	Improve asset utilization (driver and equipment) by Sponsoring an Incentive Program to reduce dwell times (power and drop trailers) and shipment volatility, and increase shipment volume and planning lead times. Incent Shippers and Consignees to treat Carriers' assets (equipment and drivers) as their own using the Incentive Program to reduce power dwell times, increase trailer pool turns, and increase appointment compliance. Earn premium pricing by exceeding key performance indicator thresholds on Incentive Programs sponsored by Shippers or Customer (Consignees).
Increase Customer and Shipper Satisfaction	Improve Load Acceptance and On-Time by using the Incentive Program to increase lead time (Advance Load Planning, Pre-appointing) and reduce shipment volatility.

Shipper

Benefit	Approach
Customer Satisfaction (On-time at Location)	Deliver improved service to Customer by rewarding Carriers for improved On-Time with an Incentive Program.
Reduce/ Avoid Costs	Reduce earned accessorials by improving Ship Location performance (especially dwell time and driver accessorials) using the Incentive Program.

Customer (Consignee)

Benefits	Approach
Make Money	Earn financial rewards by exceeding key performance indicator thresholds on Incentive Programs sponsored by Shippers or Carriers (power dwell time, pre-appointing, appt making compliance, providing accessorial information)

The gainshare incentive program of the present invention can be incorporated in an internet web-site application which will enable business Partners in the truckload transportation marketplace (shippers, consignees and carriers) collaboratively to: (a) make and confirm pick-up and delivery appointments for truckload shipments, (b) record and share key transactional data, including accessorials incurred and proof-of-delivery documents, (c) measure and improve performance on key service and cost performance indicators, and (d) create and manage incentive programs that reward business partners for meeting threshold targets on the key performance indicators.

Such an internet web-site application is preferably modular in design with each module comprised of a narrow set of related capabilities and independent of the other modules (sharing only a common administration module and an

underlying data base). This modular design reduces complexity, simplifies development and maintenance, and ensures reliability.

The modular design also helps ensure that the application, and its capabilities are intuitive and easy to use, so as to encourage adoption and consistent use by all individuals. Users will also be provided data entry options – a template (enter data into fields), manual Excel file uploads (or paste and copy), and an automated transfer server-to-server - to ease integration with current systems, regardless of business practice or process.

The structure for the modules is as follows:

1. Customer Care Module: This module welcomes visitors and invited guests to the web-site, communicates the vision and program, and then provides the information that the prospective member will want and need to make their decision to join (such as site tours, sample program and reports, press releases and articles, and customer testimonials). After completing the registration process and selecting the desired services, the member is then cared for with information (news letters, bulletin board and market updates), communication tools (buttons to e-mail the administrator, submit improvement ideas or touch a partner), and training tools (frequently asked questions, learning tutorials, and Help!). Partner administrators are also able to manage their account and archive data.

2. Master Data Entry and Management Module: Each member partner must enter and maintain its administrative data. First, the Partner designates an administrator, who then configures and assigns roles to users at that Partner. The administrator then creates a Partner list naming those Partners with whom they wish to collaborate. Each shipper and customer (consignee) must complete the ship location profile for every ship location. This profile records the information required by shippers and carriers to flawlessly plan and execute a shipment. The information is easily accessed and searched, and is maintained by the user responsible for that location. The location user configures the appointment schedule for that location in the appointment engine (for inbound and outbound shipments, as relevant). This schedule can be customized or changed to meet the needs of that location. Carriers complete a request for information survey that documents their capabilities. This information will be used by shippers to identify the carriers with the potential to offer the highest value against the shipper's needs.

3. Enter and Maintain Transactions Appointments Module: This module is the data warehouse where the data that drives the performance and incentive modules is entered and managed. Here, carriers request pick-up and deliver appointments by using the appointment engine and the location then confirms the appointment. Actuals for each shipment (against the planned appointments) are entered, by both the carrier and the location to ensure accuracy. Using an accessorial validation tool, the carrier and location independently indicate which accessorials the carrier provided while at the

location. The shipper can then access or download this accessorial history to investigate discrepancies and to approve accessorials invoiced by the carrier. The carrier can scan and post proof of delivery documents for later use by the shipper to resolved deduction claims made by the customer.

4. Performance Module: This module is a data analysis engine that generates score card reports of the performance of each participating Partner as compared to the minimum required performance level for each key performance indicator. Users cab also drill down through the data to determine the root cause of any key performance indicator deviations against the required performance level. Examples of key performance indicators are: (a) on-time by location (versus appointment), (b) power dwell time by ship location and, (c) trailer dwell times (turns) by drop location.

5. Incentive Program Creation and Management Module: In this module, member Partners can create and manage their own incentive program(s). When they do so, they become a program sponsoring Partner and commit to rewarding any participating Partner for performance that exceeds the minimum required performance level specified by the sponsoring Partner in their program(s). For example, a supplier (shipper) that wishes to reduce power dwell time at a customer's receiving location might offer that customer a reward equal to half of the carrier detention accessorial savings if that location succeeds in reducing the actual dwell time. When the improvement is realized, the payment would be issued to the customer.

6. Account Management Module: In this module, the monthly financial statements for each partner is generated and posted. Receivables are invoiced and payments are issued for earned incentives. The partner administrator can review the account and approve each credit or debit to the account.

While the example given relates to the transportation industry, the concept of the described incentive program can be applied to any buyer-seller relationship, with or without supporting third-parties, in any supply community where the performance of a Partner (unfavorably) impacts the costs or performance of another Partner which in such a situation the affected partner benefits if it successfully influences the affecting Partner to change its performance so as to eliminate the unfavorable impact.

From the proceeding description, it can be seen that an incentive program has been provided that will meet all of the advantages of prior art programs and offer additional advantages not heretofore achievable. With respect to the foregoing invention, the optimum dimensional relationship to the parts of the invention including variations in format, material, shape, form, function, and manner of operation, use and assembly are deemed readily apparent to those skilled in the art, and all equivalent relationships suggested in the drawings and described in the specification are intended to be encompassed herein.

The foregoing is considered as illustrative only of the principles of the invention. Numerous modifications and changes will readily occur to those skilled in the art, and it is not desired to limit the invention to the exact operation shown and described. All suitable modifications and equivalents that fall within the scope of the appended claims are deemed within the present inventive concept.

What is claimed is: